System Planning & Analysis Report

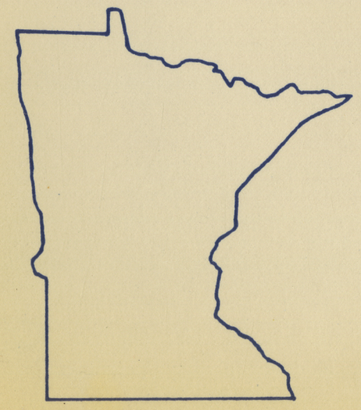
S-86

T. H. 8
T. H. 61 TO T. H. 95

S. P. 1301, 8213

MARCH, 1972

PREPARED BY
OFFICE OF SYSTEM PLANNING



MINNESOTA
DEPARTMENT
OF HIGHWAYS

ADMIN 1000
3-65

STATE OF MINNESOTA

Office Memorandum

DEPARTMENT HIGHWAY - Statewide Plan.
Room 807 Ext. 3158

DATE: March 10, 1972

TO : Paul G. Velz
Road Design Engineer

FROM : Morris Gildemeister, Chief
Statewide Planning Section

SUBJECT: T.H. 8, T.H. 61 to T.H. 95
S.P. 1301, 8213
System Planning & Analysis Report S-86

The Statewide Planning Section transmits this report in response to W. C. Merritt's January 22, 1971 request for the 1990 ADT, DHV, and HCADT for the project location shown on the map on page 2.

The estimated 1990 ADT volumes are shown on the map on page 3.

For each segment numbered on the map on page 3, the following data are tabulated on pages 4 and 5:

(a) Total ADT
(b) Vehicle Type Distribution
(c) Total HCADT
(d) Total DHV without Directional Distribution
(e) Directional Distribution of DHV

Segment 1, with a 1990 ADT of 11500, has the highest ADT on the project section of T.H. 8. This segment has a 1970 ADT of 5000 vehicles.

The basic data, method, and assumptions used to prepare this report are presented on page 6.

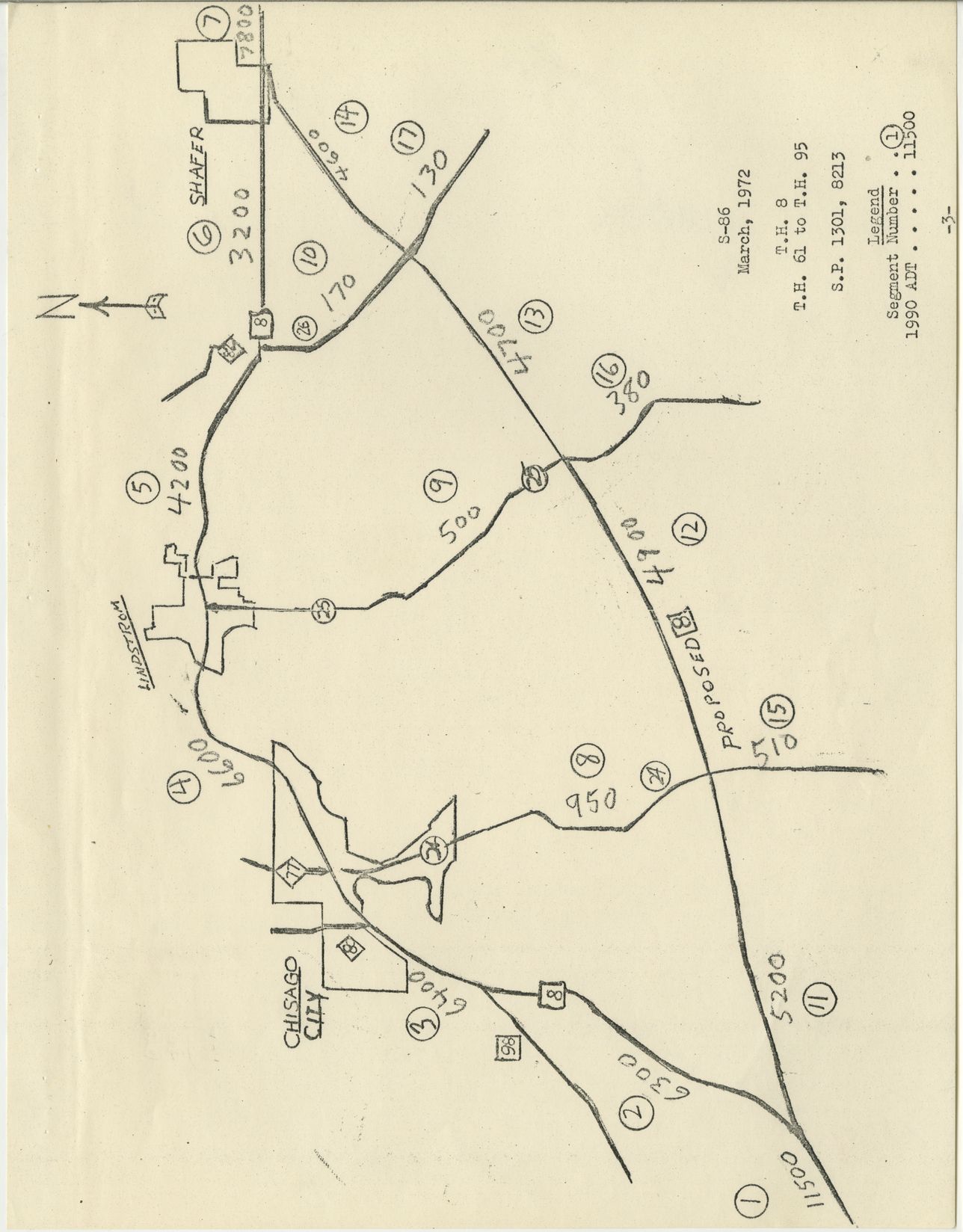
Morris Gildemeister

Morris Gildemeister, Chief
Statewide Planning Section

WF

STATE OF MINNESOTA
DEPARTMENT OF HIGHWAYS
WORK MAP

Project Location
S.P. 1301, 8213



S-86
March, 1972

T.H. 8
T.H. 61 to T.H. 95

S.P. 1301, 8213

Legend
Segment Number . (1)
1990 ADT 11500

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Form 2985 (9-63)

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1990 PART 1 OF 2

FOR

T.H. 8 S.P. 1301, 8213 LENGTH -- MILES

COUNTY Chisago, Washington LOCATION T.H. 61 to T.H. 95

BASED ON

1990 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 1 THROUGH 11 AS

DEFINED ON ATTACHED INDEX MAP

VEHICLE * TYPE	SEGMENT NUMBER										
	1	2	3	4	5	6	7	8	9	10	11
0	10844	6025	6122	6316	3996	3036	7286	916	482	164	4819
1	1.8 207	113	115	119	76	58	1.8 140	17	9	3	94
2	0.5 58	32	33	34	22	17	0.5 39	5	3	1	26
3	0.2 23	8	8	8	7	6	0.27 21	1	1	--	15
4	0.4 46	15	15	15	13	12	0.55 43	2	1	--	31
5	2.3 264	75	75	75	65	55	3.0 233	4	2	1	189
6	0.5 58	32	32	33	21	16	0.5 38	5	2	1	26
TOTAL ADT	11500	6300	6400	6600	4200	3200	7800	950	500	170	5200
TOTAL H. COMM. ADT	656	275	278	284	204	164	514	34	18	6	381
TOTAL DHV	10.2 1173	653	662	680	464	374	10.7 834	104	55	19	520
DIRECTIONAL DISTRIBUTION	65-35	60-40	60-40	60-40	60-40	60-40	65-35	55-45	55-45	55-45	65-35

* VEHICLE TYPE CODE

0 = PASSENGER CARS AND 4 TIRE TRUCKS
1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS
2 = SINGLE UNIT-3 AXLE TRUCKS
3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES
5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES
6 = BUSES AND TRUCKS WITH TRAILERS

-4-

Form 2985 (9-63)

TRAFFIC ESTIMATE DATA

DESIGN YEAR 1990 PART 2 OF 2

FOR

T.H. 8 S.P. 1301, 8213 LENGTH -- MILES

COUNTY Chisago, Washington LOCATION T.H. 61 to T.H. 95

BASED ON

1990 ADT FROM TRAFFIC ANALYSIS UNIT

SHOWING

TOTAL ADT ON SEGMENTS 12 THROUGH 17 AS DEFINED ON ATTACHED INDEX MAP

VEHICLE * TYPE	SEGMENT NUMBER										
	12	13	14	15	16	17					
0	4534	4344	4250	494	366	126					
1	88	84	82	9	7	2					
2	24	23	22	2	2	1					
3	15	15	15	--	--	--					
4	31	31	31	1	1	--					
5	184	180	178	2	2	1					
6	24	23	22	2	2	--					
TOTAL ADT	4900	4700	4600	510	380	130					
TOTAL H. COMM. ADT	366	356	350	16	14	4					
TOTAL DHV	490	470	460	56	42	14					
DIRECTIONAL DISTRIBUTION	65-35	65-35	65-35	55-45	55-45	55-45					

* VEHICLE TYPE CODE

0 = PASSENGER CARS AND 4 TIRE TRUCKS
1 = SINGLE UNIT-2 AXLE-6 TIRE TRUCKS
2 = SINGLE UNIT-3 AXLE TRUCKS
3 = TRACTOR-TRUCK OR SEMI-TRAILER- 3 AXLES
4 = TRACTOR-TRUCK OR SEMI-TRAILER - 4 AXLES
5 = TRACTOR-TRUCK OR SEMI-TRAILER - 5 AXLES
6 = BUSES AND TRUCKS WITH TRAILERS

Basic Data, Method and Assumptions

Basic data used in the preparation of this report include-

1. Past 17 years ADT for T.H. 8 on State Flowband Maps.
2. Coverage counts in 1961, 1966, 1970 on connecting roads.
3. Hourly data for 24 hours on project location for DHV.
4. Taylors Falls O-D in 1967
5. A 1970 ADT vehicle classification count on T.H. 8 Southwest of Chisago City.

The most recent 1990 statewide travel forecast developed by means of a computerized model provided estimates of total 1990 traffic on T.H. 8 just east of the junction with T.H. 61 and just west of Taylors Falls.

The 1966 Twin Cities and 1967 Taylors Falls external O-D data was then used to determine relationships between trip movements between the Twin Cities and Chisago City, Lindstrom-Center City, and the state line crossing at Taylors Falls.

These relationships, together with travel time-trip diversion relationships, were used to allocate the long trip (Twin Cities-Chisago City, Lindstrom-Center City, and Taylors Falls-Wisconsin) component of future travel to the old and proposed new T.H. 8 locations.

The local, short-trip, component was then projected based on past trends and added to the long trip component to arrive at total 1990 assigned traffic on all segments.